Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC39734	Pokagon SP - Main Beach	5/20/2024	5/23/2024	< 0.30
AC39735	Pokagon SP - Potawatomi Inn Beach	5/20/2024	5/23/2024	< 0.30
AC39736	Chain O'Lakes SP - Sand Lake Beach	5/20/2024	5/23/2024	< 0.30
AC39737	Ouabache SP - Kunkel Lake Beach	5/20/2024	5/23/2024	< 0.30
AC39738	Potato Creek SP - Worster Lake Beach	5/21/2024	5/23/2024	< 0.30
AC39739	Mississinewa Lake - Miami SRA Beach	5/21/2024	5/23/2024	< 0.30
AC39740	Salamonie Lake - Lost Bridge West SRA Beach	5/21/2024	5/23/2024	< 0.30
AC39741	Summit Lake SP - Summit Lake Beach	5/21/2024	5/23/2024	< 0.30
AC39742	Chain O'Lakes SP - Sand Lake Beach (Field Duplicate)	5/20/2024	5/23/2024	< 0.30
AC39743	Field Blank	5/20/2024	5/23/2024	< 0.30
AC39744	Lincoln SP - Lake Lincoln Beach	5/20/2024	5/23/2024	< 0.30
AC39745	Ferdinand State Forest - Ferdinand Lake Beach	5/20/2024	5/23/2024	< 0.30
AC39746	Patoka Lake - Newton Stewart SRA	5/20/2024	5/23/2024	< 0.30

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Test Report (by Request)

Test Information

Request: 5/23/2024 3:09:12 PM
Date: 5/23/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.127 Abs	0.014 µg/L	R^2=0.99884, 99.29		0.000	Kit:P23C0
MCT Std 0	MICROCYSTINS ADDA 54	1.143 Abs [1.1350] {1.0 C	0.000 µg/L [0.007]	R^2=0.99884, 100.7		0.000	Kit:P23C0
MCT Std 1	MICROCYSTINS ADDA 54	0.983 Abs	0.129 µg/L	R^2=0.99884, 86.60		0.150	Kit:P23C0
MCT Std 1	MICROCYSTINS ADDA 54	0.957 Abs [0.9700] {1.9 C	0.150 µg/L [0.140]	R^2=0.99884, 84.31		0.150	Kit:P23C0
MCT Std 2	MICROCYSTINS ADDA 54	0.711 Abs	0.419 µg/L	R^2=0.99884, 62.64		0.400	Kit:P23C0
MCT Std 2	MICROCYSTINS ADDA 54	0.709 Abs [0.7100] {0.2 C	0.422 µg/L [0.421]	R^2=0.99884, 62.46		0.400	Kit:P23C0
MCT Std 3	MICROCYSTINS ADDA 54	0.476 Abs	0.981 µg/L	R^2=0.99884, 41.93		1.000	Kit:P23C0
MCT Std 3	MICROCYSTINS ADDA 54	0.465 Abs [0.4705] {1.7 C	1.027 µg/L [1.004]	R^2=0.99884, 40.96		1.000	Kit:P23C0
MCT Std 4	MICROCYSTINS ADDA 54	0.348 Abs	1.831 µg/L	R^2=0.99884, 30.66		2.000	Kit:P23C0
MCT Std 4	MICROCYSTINS ADDA 54	0.352 Abs [0.3500] {0.8 C	1.787 µg/L [1.809]	R^2=0.99884, 31.01		2.000	Kit:P23C0
MCT Std 5	MICROCYSTINS ADDA 54	0.228 Abs	> 5.000 µg/L	20.088 %Abs		5.000	Kit:P23C0
MCT Std 5	MICROCYSTINS ADDA 54	0.229 Abs [0.2285] {0.3 C	> 5.000 µg/L	20.176 %Abs		5.000	Kit:P23C0
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.066 Abs	0.063 µg/L	93.921 %Abs			Kit:P23C0
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.054 Abs [1.0600] {0.8 C	0.073 µg/L [0.068]	92.863 %Abs [93.3			Kit:P23C0
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.774 Abs	0.334 µg/L	68.194 %Abs			Kit:P23C0
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.771 Abs [0.7725] {0.3 C	0.338 µg/L [0.336]	67.930 %Abs [68.0			Kit:P23C0
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.582 Abs	0.657 µg/L	51.278 %Abs			Kit:P23C0
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.603 Abs [0.5925] {2.5 C	0.610 µg/L [0.634]	53.128 %Abs [52.2			Kit:P23C0

Note

Signature _____

Charles Hostetter 5/23/2024

* A - Abs > 3; IA - Initial Abs; DA - Delta Abs; SD - SD of Abs; LR - Linear Range; [...] - Mean result of duplicate tests
* Generated by software version (6.4.1.1171/1085/1.00/0.95) 5/23/2024 3:19:03 PM

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Test Report (by Request)

Test Information

Request: 5/23/2024 3:10:28 PM
Date: 5/23/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AC39734	MICROCYSTINS ADDA 5	1.070 Abs	0.060 µg/L	Low, 94.273 %Abs		0.300 - 5.000	Kit:P23C0
AC39734	MICROCYSTINS ADDA 5	1.072 Abs [1.0710] {0.1 C	0.059 µg/L [0.060]	Low, 94.449 %Abs		0.300 - 5.000	Kit:P23C0
AC39734MS	MICROCYSTINS ADDA 5	0.509 Abs	0.861 µg/L	44.846 %Abs		0.300 - 5.000	Kit:P23C0
AC39734MS	MICROCYSTINS ADDA 5	0.523 Abs [0.5160] {1.9 C	0.816 µg/L [0.839]	46.079 %Abs [45.4		0.300 - 5.000	Kit:P23C0
AC39734MSD	MICROCYSTINS ADDA 5	0.582 Abs	0.657 µg/L	51.278 %Abs		0.300 - 5.000	Kit:P23C0
AC39734MSD	MICROCYSTINS ADDA 5	0.565 Abs [0.5735] {2.1 C	0.699 µg/L [0.678]	49.780 %Abs [50.5		0.300 - 5.000	Kit:P23C0
AC39735	MICROCYSTINS ADDA 5	1.064 Abs	0.065 µg/L	Low, 93.744 %Abs		0.300 - 5.000	Kit:P23C0
AC39735	MICROCYSTINS ADDA 5	1.080 Abs [1.0720] {1.1 C	0.052 µg/L [0.059]	Low, 95.154 %Abs		0.300 - 5.000	Kit:P23C0
AC39736	MICROCYSTINS ADDA 5	1.063 Abs	0.066 µg/L	Low, 93.656 %Abs		0.300 - 5.000	Kit:P23C0
AC39736	MICROCYSTINS ADDA 5	1.065 Abs [1.0640] {0.1 C	0.064 µg/L [0.065]	Low, 93.833 %Abs		0.300 - 5.000	Kit:P23C0
AC39737	MICROCYSTINS ADDA 5	0.900 Abs	0.201 µg/L	Low, 79.295 %Abs		0.300 - 5.000	Kit:P23C0
AC39737	MICROCYSTINS ADDA 5	0.921 Abs [0.9105] {1.6 C	0.181 µg/L [0.191]	Low, 81.145 %Abs		0.300 - 5.000	Kit:P23C0
AC39738	MICROCYSTINS ADDA 5	1.043 Abs	0.081 µg/L	Low, 91.894 %Abs		0.300 - 5.000	Kit:P23C0
AC39738	MICROCYSTINS ADDA 5	0.995 Abs [1.0190] {3.3 C	0.119 µg/L [0.100]	Low, 87.665 %Abs		0.300 - 5.000	Kit:P23C0
AC39739	MICROCYSTINS ADDA 5	1.046 Abs	0.079 µg/L	Low, 92.159 %Abs		0.300 - 5.000	Kit:P23C0
AC39739	MICROCYSTINS ADDA 5	1.078 Abs [1.0620] {2.1 C	0.054 µg/L [0.067]	Low, 94.978 %Abs		0.300 - 5.000	Kit:P23C0
AC39740	MICROCYSTINS ADDA 5	1.057 Abs	0.070 µg/L	Low, 93.128 %Abs		0.300 - 5.000	Kit:P23C0
AC39740	MICROCYSTINS ADDA 5	1.058 Abs [1.0575] {0.1 C	0.069 µg/L [0.070]	Low, 93.216 %Abs		0.300 - 5.000	Kit:P23C0
AC39741	MICROCYSTINS ADDA 5	0.997 Abs	0.117 µg/L	Low, 87.841 %Abs		0.300 - 5.000	Kit:P23C0
AC39741	MICROCYSTINS ADDA 5	1.046 Abs [1.0215] {3.4 C	0.079 µg/L [0.098]	Low, 92.159 %Abs		0.300 - 5.000	Kit:P23C0
AC39742	MICROCYSTINS ADDA 5	1.065 Abs	0.064 µg/L	Low, 93.833 %Abs		0.300 - 5.000	Kit:P23C0
AC39742	MICROCYSTINS ADDA 5	1.047 Abs [1.0560] {1.2 C	0.078 µg/L [0.071]	Low, 92.247 %Abs		0.300 - 5.000	Kit:P23C0
AC39743	MICROCYSTINS ADDA 5	1.096 Abs	0.040 µg/L	Low, 96.564 %Abs		0.300 - 5.000	Kit:P23C0
AC39743	MICROCYSTINS ADDA 5	1.093 Abs [1.0945] {0.2 C	0.042 µg/L [0.041]	Low, 96.300 %Abs		0.300 - 5.000	Kit:P23C0
AC39744	MICROCYSTINS ADDA 5	1.058 Abs	0.069 µg/L	Low, 93.216 %Abs		0.300 - 5.000	Kit:P23C0
AC39744	MICROCYSTINS ADDA 5	1.075 Abs [1.0665] {1.1 C	0.056 µg/L [0.063]	Low, 94.714 %Abs		0.300 - 5.000	Kit:P23C0
AC39745	MICROCYSTINS ADDA 5	1.011 Abs	0.106 µg/L	Low, 89.075 %Abs		0.300 - 5.000	Kit:P23C0
AC39745	MICROCYSTINS ADDA 5	1.004 Abs [1.0075] {0.5 C	0.112 µg/L [0.109]	Low, 88.458 %Abs		0.300 - 5.000	Kit:P23C0
AC39746	MICROCYSTINS ADDA 5	1.073 Abs	0.058 µg/L	Low, 94.537 %Abs		0.300 - 5.000	Kit:P23C0
AC39746	MICROCYSTINS ADDA 5	1.064 Abs [1.0685] {0.6 C	0.065 µg/L [0.062]	Low, 93.744 %Abs		0.300 - 5.000	Kit:P23C0
LFB 2	MICROCYSTINS ADDA 5	0.596 Abs	0.626 µg/L	52.511 %Abs		0.300 - 5.000	Kit:P23C0
LFB 2	MICROCYSTINS ADDA 5	0.586 Abs [0.5910] {1.2 C	0.648 µg/L [0.637]	51.630 %Abs [52.0		0.300 - 5.000	Kit:P23C0
LRB 2	MICROCYSTINS ADDA 5	1.082 Abs	0.051 µg/L	Low, 95.330 %Abs		0.300 - 5.000	Kit:P23C0
LRB 2	MICROCYSTINS ADDA 5	1.036 Abs [1.0590] {3.1 C	0.087 µg/L [0.069]	Low, 91.278 %Abs		0.300 - 5.000	Kit:P23C0

Note

Signature _____

Charles Hostetter 5/23/2024

* A - Abs > 3; IA - Initial Abs; DA - Delta Abs; SD - SD of Abs; LR - Linear Range; [...] - Mean result of duplicate tests
* Generated by software version (6.4.1.1171/1085/1.00/0.95) 5/23/2024 3:19:03 PM

MICROCYSTINS ADDA 546_ - Assay Calibration Report

Assay Information

Assay Name: MICROCYSTINS ADDA 546_
Version: 2
Temperature: Room Temperature
Last Modified By: Security disabled
Units: µg/L
Assay Description:
Assay Substances: Controls:
MCT 546 LRB 1
MCT 546 Low-CV
MCT 546 LFB 1
Standards:
MCT Std 0, Concentration = 0.000, Minimum number to use: 2
MCT Std 1, Concentration = 0.150, Minimum number to use: 2
MCT Std 2, Concentration = 0.400, Minimum number to use: 2
MCT Std 3, Concentration = 1.000, Minimum number to use: 2
MCT Std 4, Concentration = 2.000, Minimum number to use: 2
MCT Std 5, Concentration = 5.000, Minimum number to use: 2
Curve valid interval: 1 days 0 hours
Axis Mode: Y = Abs, X = Log(Conc)

Assay Mode: 4-Parameter Logistic Weight by:None
Well Type: Flat bottom
Last Modified On: 9/30/2020 10:02:13 AM
Normal: 0.300 - 5.000
# of decimals: 3
Kit Lot Number: Kit:P23C0589

Assay Calibration

Current Calibration Status: " **"**

Name	Absorbance	Concentration	Interpretation	Position
5/23/2024 3:09:12 PM				
MCT Std 0	1.127 Abs	0.014 µg/L	R^2=0.99884, 99.295 %Abs	RK1:23->A01@2
MCT Std 0	1.143 Abs [1.1350] {1.0 CV}	0.000 µg/L [0.007] {141.4 C\	R^2=0.99884, 100.705 %Abs	RK1:23->B01@2
MCT Std 1	0.983 Abs	0.129 µg/L	R^2=0.99884, 86.608 %Abs	RK1:24->C01@2
MCT Std 1	0.957 Abs [0.9700] {1.9 CV}	0.150 µg/L [0.140] {10.6 CV}	R^2=0.99884, 84.317 %Abs	RK1:24->D01@2
MCT Std 2	0.711 Abs	0.419 µg/L	R^2=0.99884, 62.643 %Abs	RK1:25->E01@2
MCT Std 2	0.709 Abs [0.7100] {0.2 CV}	0.422 µg/L [0.421] {0.5 CV}	R^2=0.99884, 62.467 %Abs	RK1:25->F01@3
MCT Std 3	0.476 Abs	0.981 µg/L	R^2=0.99884, 41.938 %Abs	RK1:26->G01@3
MCT Std 3	0.465 Abs [0.4705] {1.7 CV}	1.027 µg/L [1.004] {3.2 CV}	R^2=0.99884, 40.969 %Abs	RK1:26->H01@3
MCT Std 4	0.348 Abs	1.831 µg/L	R^2=0.99884, 30.661 %Abs	RK1:27->A02@2
MCT Std 4	0.352 Abs [0.3500] {0.8 CV}	1.787 µg/L [1.809] {1.7 CV}	R^2=0.99884, 31.013 %Abs	RK1:27->B02@2
MCT Std 5	0.228 Abs	> 5.000 µg/L	20.088 %Abs	RK1:28->C02@2
MCT Std 5	0.229 Abs [0.2285] {0.3 CV}	> 5.000 µg/L	20.176 %Abs	RK1:28->D02@2
++++++++++++++++++++++++++++++++++	++++++++++++++++++++++	++++++++++++++++++++++	++++++++++++++++++++++	++++++++++++++++++++++
5/23/2024 3:09:12 PM				
MCT 546 LRB 1	1.066 Abs	0.063 µg/L	93.921 %Abs	RK1:29->E02@2
MCT 546 LRB 1	1.054 Abs [1.0600] {0.8 CV}	0.073 µg/L [0.068] {10.4 CV}	92.863 %Abs [93.392 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	0.774 Abs	0.334 µg/L	68.194 %Abs	RK1:30->G02@3
MCT 546 Low-CV	0.771 Abs [0.7725] {0.3 CV}	0.338 µg/L [0.336] {0.8 CV}	67.930 %Abs [68.062 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	0.582 Abs	0.657 µg/L	51.278 %Abs	RK1:31->A03@2
MCT 546 LFB 1	0.603 Abs [0.5925] {2.5 CV}	0.610 µg/L [0.634] {5.2 CV}	53.128 %Abs [52.203 %Abs]	RK1:31->B03@2
**********	**********	**********	**********	**********
Statistic				
MCT Std 0 [MEAN]	1.1350	0.0070		
MCT Std 0 [SD]	0.0113	0.0099		
MCT Std 0 [%CV]	0.9968	141.4214		
MCT Std 1 [MEAN]	0.9700	0.1395		
MCT Std 1 [SD]	0.0184	0.0148		
MCT Std 1 [%CV]	1.8953	10.6446		
MCT Std 1 [%DIFF]		-7.0000		
MCT Std 2 [MEAN]	0.7100	0.4205		
MCT Std 2 [SD]	0.0014	0.0021		
MCT Std 2 [%CV]	0.1992	0.5045		
MCT Std 2 [%DIFF]		5.1250		
MCT Std 3 [MEAN]	0.4705	1.0040		
MCT Std 3 [SD]	0.0078	0.0325		
MCT Std 3 [%CV]	1.6532	3.2397		
MCT Std 3 [%DIFF]		0.4000		
MCT Std 4 [MEAN]	0.3500	1.8090		

MICROCYSTINS ADDA 546_ - Assay Calibration Report

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0028	0.0311		
MCT Std 4 [%CV]	0.8081	1.7199		
MCT Std 4 [%DIFF]		-9.5500		
MCT Std 5 [MEAN]	0.2285			
MCT Std 5 [SD]	0.0007			
MCT Std 5 [%CV]	0.3095			
MCT 546 LRB 1 [MEAN]	1.0600	0.0680		
MCT 546 LRB 1 [SD]	0.0085	0.0071		
MCT 546 LRB 1 [%CV]	0.8005	10.3986		
MCT 546 Low-CV [MEAN]	0.7725	0.3360		
MCT 546 Low-CV [SD]	0.0021	0.0028		
MCT 546 Low-CV [%CV]	0.2746	0.8418		
MCT 546 LFB 1 [MEAN]	0.5925	0.6335		
MCT 546 LFB 1 [SD]	0.0148	0.0332		
MCT 546 LFB 1 [%CV]	2.5062	5.2461		

Assay Curve

y = (A-D)/(1+(x/C)^B) + D
Weight: NONE
A = 1.1392
B = 1.2060
C = 0.49795
D = 0.18340
R2 coef = 0.99884
50% = 0.693